



HSB Series High Purity, Single-Stage, Chrome-Plated Brass, Cylinder Regulator

SPECIFICATION

Applications

Non-corrosive gases

- Brass body

Medium flow applications

- Cv of 0.17

Slight rise in delivery pressure is not an issue as cylinder pressure goes down

- Single-stage regulator

Recommended for gas purity up to Grade 5.0 (99.999% pure)

- Diffusion resistant diaphragm to body in a forged body regulator (inboard leak rate 1×10^{-8})

Designed for use with gas cylinders

- Directly mounted to the cylinder valve with gas related cylinder nut and nipple



Key Features

Stainless steel diaphragm

- Eliminates "off gassing" associated with neoprene diaphragm into the gas stream

One-piece encapsulated seat design

- Ease of maintenance and ease of cleaning

Tamper-proof self re-seating internal valve

- Maintains regulator integrity and reduces maintenance

Forged brass body

- Minimizes diffusion of air into regulator thus maintaining gas purity

Chrome-plated body and bonnet

- Provides polished finish and ease of cleaning

Seat assembly with built-in filter

- Traps foreign matter thus extending regulator life and reduces maintenance

Ordering Information

HSB

A

B

C

D

Part Number Matrix - HSB

A	
GAS	INSCRIBE
Air- compressed	CGA 346
Argon	CGA 580
Argon inert mix	CGA 580
Carbon dioxide*	CGA 320
Helium	CGA 580
Hydrogen	CGA 350
Argon/methane	CGA 350
Nitrogen	CGA 580
Air - industrial	CGA 590
Nitrous oxide*	CGA 326
Oxygen	CGA 540
Other gas: provide CGA number	

B	
DELIVERY PRESSURE	INSCRIBE
1-15 psi (0-30 psi gauge)	15
5-50 psi (0-100 psi gauge)	50
30-125 psi (0-200 psi gauge)	125
50-250 psi (0-400 psi gauge)	250

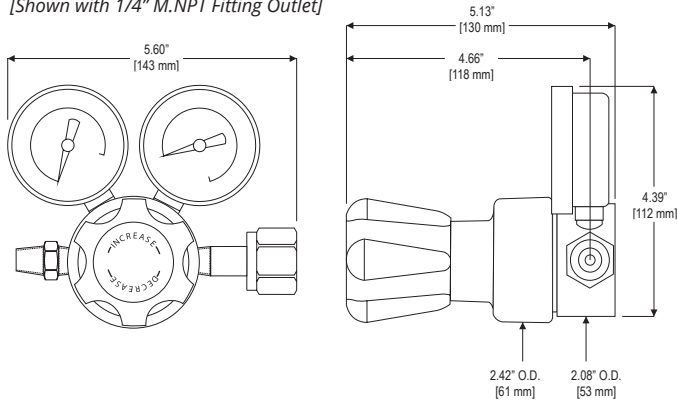
C	
OUTLET ASSEMBLY	INSCRIBE
1/4" F.NPT	4FB
1/4" M.NPT	4MB
Diaphragm Valve	DVB
Needle Valve	NVB
1/8" Compression Brass	CB2
1/4" Compression Brass	CB4

D	
COUNTRY	INSCRIBE
USA	Leave blank
Germany	DIN
United Kingdom	BS
France	AFNOR
Italy	UNI
Argentina	IRAM
Australia & New Zealand	AS
Brazil	ABNT
Netherlands	NEN
Spain	ITC

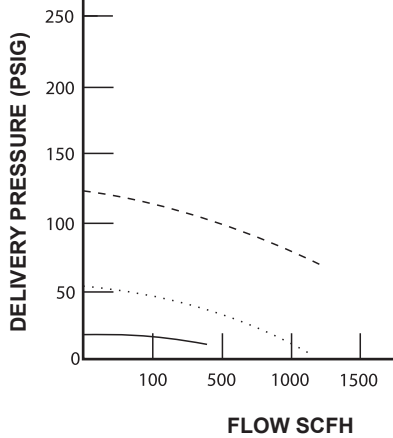
* For carbon dioxide and nitrous oxide service, it is strongly recommended to use electrically heated regulators. Should flow of carbon dioxide or nitrous oxide exceed 35 SCFH, regulator will freeze up and warranty will be null & void.

Dimensions

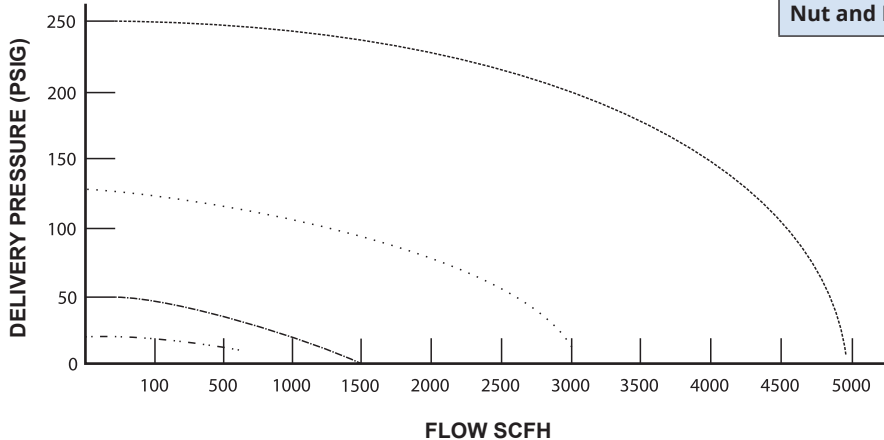
Approximate dimensions
[Shown with 1/4" M.NPT Fitting Outlet]



Flow Data



15 @ 200 PSIG INLET ———
50 @ 200 PSIG INLET
125 @ 200 PSIG INLET - - - - -



15 @ 2000 PSIG INLET
50 @ 2000 PSIG INLET
125 @ 2000 PSIG INLET
250 @ 2000 PSIG INLET

Specifications

Maximum Inlet Pressure	3000 psig [207 barg]
Flow Coefficient	Cv = 0.17
Operating Temperature	-40°F to 140°F [-40°C to 60°C]
Gauge Diameter	2" [51 mm] dial
Inlet Gauge Range	0 - 4000 psig [0 - 276 barg]
Delivery Pressure	See Part Number Matrix

Materials

Regulator	
Body	Chrome-plated Brass
Bonnet	Chrome-plated Die Cast
Diaphragm	302 Stainless Steel
Nozzle	Brass
Seat and Seals	PTFE Teflon
Filter	Nickel-plated Sintered Bronze - 10 micron
Seat Return Spring	PH 17 Stainless Steel
Adjusting Knob	ABS Plastic
Diaphragm Valve (if selected)	
Body	Chrome-plated Brass
Diaphragm	316 Stainless Steel
Seat	PCTFE (Kel-F™)
Knob	Black Phenolic
Gas Cylinder Connection	
Nut and Nipple	Chrome-plated Brass